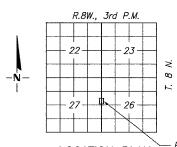
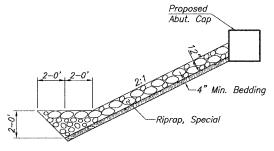
\*JULIAN AVENUE



LOCATION PLAN

- Proposed Bridge



MACOUPIN COUNTY VILLAGE OF ROYAL LAKES SEC. 04-00001-00-BR STR. NO. 059-3444 LOADING HS 20

COOP BRANCH BUILT 200\_ BY

# LETTERING FOR NAME PLATE

See Std. 515001

# SECTION A-A

Note: See Special Provisions for Riprap, Special

# GENERAL NOTES

The Standard Specifications adopted by the Department of Transportation, January 1, 2007 shall apply to this work.

The layout of riprap may be varied in the field

to better suit ground conditions, as directed by the

The Contractor shall drive one steel test pile in a permanent location at each Abutment, as directed by the Engineer, before ordering the remainder of the piles. See Special Provisions for Borings.

Reinforcement bars shall conform to requirements of ASTM A706 Grade 60. See Special Provisions.

### TOTAL BILL OF MATERIAL

UNIT	SUPER	SUB	TOTAL
Sq. Ft.	1,890		1,890
Cu. Yd.		20.7	20.7
Pound		3,360	3,360
Foot	140		140
Each		1	1
Foot		225	225
Each		2	2
Ton			124
Cu. Yd.		2.8	2.8
	Sq. Ft.  Cu. Yd.  Pound  Foot  Each  Foot  Faot  Ton	Sq. Ft. 1,890  Cu. Yd.  Pound  Foot 140  Each  Foot  Each  Ton	Sq. Ft.     1,890       Cu. Yd.     20.7       Pound     3,360       Foot     140       Each     1       Foot     225       Each     2       Ton     2

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges".

Coul Blyday 03/20/08 ILLINOIS STRUCTURAL NO. 4859



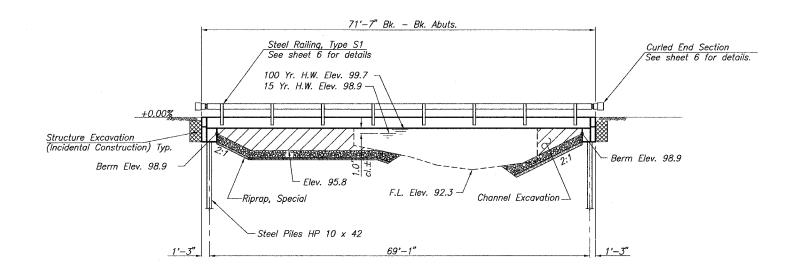
# EXP. 11-30-08

1-30-08 MACOUPIN COUNTY CKED BY STATION 9+93 мсв COOMBE-BLOXDORF P.C. Engineers / Land Surveyors Springfield, Illinois Design Firm License No. 184-002703

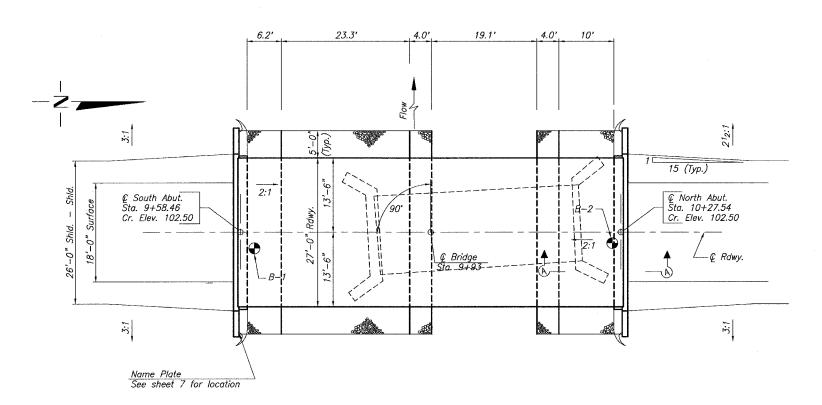
GENERAL PLAN & ELEVATION

SECTION 04-00001-00-BR

VILLAGE OF ROYAL LAKES



# **ELEVATION**



<u>PLAN</u>

# WATERWAY DATA

DRAINAGE AREA	3.05 SQ. MI.
EXISTING OPENING	168 SQ. FT.
REQUIRED OPENING	246 SQ. FT.
PROPOSED OPENING	246 SQ. FT.
DESIGN DISCHARGE (15YR.)	947 C.F.S.
CREATED HEAD	0.13 FEET
	1657 C.F.S.
100 YR. CREATED HEAD	0.47 FEET

IDNR-Office of Water Resources has issued Permit DS2008010 for construction of this project.

## **DESIGN STRESSES**

= 5,000 psi (Prestressed Beams)
= 4,000 psi (Prestressed Beams)
= 1,400 psi (Class SI Concrete)
= 270,000 psi (Prestressed Strands)
= 201,960 psi (Prestressed Strands)
= 24,000 psi (Reinf. Bars — Field Units)
= 60,000 psi (Reinf. Bars — Precast Units)
= 9 (Class SI Concrete) Loading HS 20-44 Design Specifications: 2002 AASHTO 25#/Sq. Ft. included in dead load for future wearing surface.